Creation of a Gene Bank

*322. SHRIMATI VANGA GEETHA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether Government have any proposal to create a gene bank for private and public organisations;

(b) if so, the modalities worked out in this regard so far; and

(c) the funds allocated for the current Five Year Plan for this purpose?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) to (c) A Statement is laid on the Table of the House.

Statement

(a) and (b) Yes, Sir. The Government has already established National Gene Banks for Microbes, Blue Green Algae, Marine Cyanobacteria, Medicinal & Aromatic Plants, Drosophila, Filarial Parasites, Seeds for food and agricultural crops, etc. These Gene Banks which are being supported by the Ministry of Science and Technology, (Department of Biotechnology, Council of Scientific and Industrial Research) and Indian Council of Agricultural Research, are accessible to public and private sector organizations for utilizing the genetic material as per their requirement. Setting up of more gene banks/repositories would depend upon the needs and requirements of scientists, institutions and industry engaged in research, production and trade.

(c) A total amount of Rs. 46.28 crores has been allocated for the current five year plan for these Gene Banks, where Department of Biotechnology, Council of Scientific and Industrial Research and Indian Council of Agricultural Research have allocated Rs. 15.84, Rs. 4.00 and Rs. 26.44 crores respectively.

SHRIMATI VANGA GEETHA: Sir, the technology, more particularly bio-technology, scientific and industrial research, apart from agricultural research are very essential for all round development of our country; and to compete with the developed countries we need to encourage our research and scientific fraternity to achieve our goals. In this background, I would like to know from the hon. Minister how far the gene banks established in our country are useful for the scientists and the common man of our country? Is there any intellectual audit in various scientific organisations of our country? If so, what are the details?

SHRI KAPIL SIBAL: Mr. Chairman, Sir, I think, it is the obligation of every country to, in fact, establish gene banks to protect its bio-diversity. With that in mind we have established gene banks in various areas from medicinal and aromatic plants to seeds in agricultural produce to blue and green algae, cyanobacteria, a range of things to protect our bio-diversity. In fact, we have one international depository authority as well, which is Institute of Molecular Technology, IMTECH, which is situated in Chandigarh, which accords to international standards. In the Ministry of Agriculture, we have, in fact accessions of 3,00,000, which is probably the largest in Asia. So, we are taking care of our gene banks. We need to make much better efforts at this and we have, in fact, written to the various Departments of Government of India under various Ministries to establish international depository authorities. Certainly, audits are taking place. Basically a gene bank is a service agency. So, we are servicing all in the private sector and the public sector; whenever they want any particular micro-organism, we supply to them and that really is the basic purpose of a gene bank.

SHRIMATI VANGA GEETHA: Sir, my second supplementary is, the number of women scientists working in various scientific organisations and research organisations is very, very low. Hence, in order to utilise their services in these organisations, what are the steps contemplated by the Government; and is there any proposal to increase the allocation for bio-technology, scientific and industrial technology, apart from agricultural research?

SHRI KAPIL SIBAL: Sir, first of all, this question really does not arise out of the main question because this has something to do with using the talent of women that we have in this country in the science and technology sector. But, since she is a lady and I have great respect for ladies, I would like to reply to this question. In fact, I have set up a Task Force — this is one of my main objectives — within the Ministry to help women who have great talent in this country and form 50 per cent of the population to give inputs to science and technology. What we are planning to do — it is at the planning stage — is to have flexible employment opportunities for women, because, in the age of technology, we think that a woman, who has to raise her children, has an equal commitment to the family as to the office. So, we should allow them to use computers at home and sit at home and not lose their lien on their jobs. So, they

can either come for half-a-day to office, or, work from home so that their takat is not lost in that way, they will also contribute to the wealth of the nation. This is at the planning stage. Hopefully, we will all agree to this and come forward with a scheme to help all women who are educated in science and technology to give back to society what they have gained from society and without that national effort, we will not be able to go forward.

श्रीमती सुषमा स्वराज: धन्यवाद, सभापति जी। सभापति जी, मैं मंत्री महोदय से यह जानना चाहूंगी कि आपने जो लिखित उत्तर दिया है, उसमें कहा है कि मेडिसिनल और ऐरोमैटिक प्लांट्स के लिए भी आपने जीन बैंक बनाया है। सभापति जी, आपको भी यह मालूम होगा कि विदेश में भी और देश में भी इन प्लांट्स का बहुत बड़ा बाजार उपलब्ध है, लेकिन जब मैंने देखा कि आपने जीन बैंक के लिए पैसे किन-किन को दिए हैं, तो मैंने देखा कि इंडियन काउन्सिल ऑफ एग्रीकल्चरल रिसर्च तो उसमें है, लेकिन आईसीएमआर, इंडियन काउन्सिल ऑफ मेडिकल रिसर्च उसमें नहीं है। आपने कोई भी पैसा इंडियन काउन्सिल ऑफ मेडिकल रिसर्च को नहीं दिया है। क्या मैडिसिनल और ऐरोमेटिक प्लांट्स के बाजार को कैश करने के लिए और इनके जीन्स को और ज्यादा आगे बढ़ाने के लिए आप आईसीएमआर को भी अपनी परिधि में शामिल करेंगे?

SHRI KAPIL SIBAL: In fact, Mr. Chairman, Sir, we have written to the ICMR. We are trying to persuade the ICMR to have an International Depository Authority. Remember, we cannot exploit the international market unless we set up International Depository Authorities in India. In India, we have only one such Authority under the Ministry of Science and Technology. What we need is the Agricultural Ministry and the Health Ministry to set up International Depository Authorities. There are seven such Authorities in China and there are 20 in a country like Sweden. As these Depository Authorities accord to international standards, then you can access micro organisms from these Authorities and outdate your products by reference to them.

SHRIMATI SUSHMA SWARAJ: Why don't we set up such Authorities in India?

SHRI KAPIL SIBAL: Exactly. This is why we have written. I am sure various departments will have the money. To run one Authority costs a lot of money. I am sure they will raise the money and set up these International Development Authorities. I for one in the Ministry have set it up. But we want a whole range of such Authorities set up in the country and, I am sure, the Government would do so.

श्रीमती सुषमा स्वराज: पैसे की कमी की बात आप हर बार करते हैं।

SHRI MANOJ BHATTACHARYA: Sir, I am sure, the hon. Minister is aware that more than 20 per cent of the human genes are already patented in America by one university and some big private corporate house. Is patenting of human genes in America going to jeopardise the biotechnology research in India nad would this become an impediment to biotechnology research in India? If so, what are the measures that the Government is trying to evolve? Thank you.

SHRI KAPIL SIBAL: Sir, again, this question does not arise out of the main question. The main question relates to gene banks. What the hon. Member is talking about is the sequencing of the genome which is an entirely different issue. There is an ongoing international debate whether sequencing of a genome can be protected under IP law. We believe that any discovery, even a micro organism discovered, or, a microbe discovered, cannot be protected because there is no invention involved in this. There is a whole range of international debate on this issue. And, there are two sides to the problem and, I am sure, the international community will come to some conclusion on this.

SHRI M.P. ABDUSSAMAD SAMADANI: Sir, very rarely we get opportunities to put questions on science and technology. I avail this opportunity to make a general query before the hon. Minister. Now-a-days, many researches that are conducted in the field of genetic science are not taking human values into consideration. There is no place for ethics. If these kinds of researches are allowed to continue, that will be a very big challenge even to the very existence of humanity on this earth. So, I would like to know from the hon. Minister, at least, in our country, taking into account our great moral traditions and ethical heritage, whether the Government would take any concrete steps to control those researches which have no relation with ethics. And, Sir, I have another query. ...(*Interruptions*)...

MR. CHAIRMAN: No; no.

SHRI M.P. ABDUSSAMAD SAMADANI: Sir, we are losing the patent for many plants. I would like to know whether the Government is going to take some strong steps to protect our herbs which are especially useful in Ayurveda.

SHRI KAPIL SIBAL: Mr. Chairman, Sir, there are two parts of this question. The first part is a about using ethical guidelines in R.& D in gene technology. This question really does not relate to gene banks, but to things like stem cell research. And, this does not fall under my Ministry. They fall under the Ministry of Health. But, in any case, I might inform the hon. Member that we have proposed a joint advisory committee between the ICMR and the Department of Biotechnology, which is under my Ministry, to prepare guidelines for ethical standards in research of this nature. And, in any case, now, we are issuing guidelines in all such areas. For example, in the filed of health, in particular, because modern technology will allow you to inject things into your body without knowing what the consequences of that would be. So, I think, we have to be extremely careful and safety standards will have to be evolved. And, my Ministry, with the help of the Ministry of Health, is evolving those standards for all kinds of research that the hon. Member is talking about.

Sir, the second part of the question relates to medicinal plants and Ayurveda. In fact, the hon. Member should know that we are the only country, in the world, which has this kind of wealth. And, we have in fact set up a data base on it, which had never been done before. That will soon be completed. Now, for the purposs of granting FDA clearance, ayurvedic medicines are one of the tests on the basis of which those clearances are granted.

Funds for roads in NE region

*323. SHRI DWIJENDRA NATH SHARMAH: Will the Minister of SHIPPING, ROAD TRANSPORT AND HIGHWAYS be pleased to state:

(a) the details of funds allotted and utilised during the last three years in the States of North Eastern Region under road funds to upgrade highways and main district roads of the NER; and

(b) the names of the roads for which allocations had been made and the details of the progress of works on these roads of the region during this period?

THE MINISTER OF SHIPPING, ROAD TRANSPORT AND HIGHWAYS (SHRI T.R. BAALU): (a) and (b) A Statement is laid on the Table of the House.

Statement

(a) The works on National Highways are mainly executed through